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The Mid-East: Can They Make it to Nuclear Club?

Israel's off-the-ropes comeback in the latest round of mid-East strife again raises the question of whether she has secretly developed a nuclear arsenal to be used as a last-gasp measure if all else fails on the battlefield. Interest in the question has been further enlivened by Cairo's most influential political commentator, Mohamed Hassanein Heikal, who last week urged the Arabs to develop a nuclear capability, and also revealed several Egyptian attempts to become a nuclear power.

To begin with there is always the possibility of the antagonists becoming nuclear with the help of their respective friends. And, in fact, in recent weeks it was rumored that the Soviets had supplied nuclear-tipped missiles to the Egyptians, Those reports are now generally taken to be false, especially since the Soviets—with the ambiguous exception of the Cuban missile crisis—appear to have a rigid policy of keeping their nuclear weapons on Soviet soil, and not even supplying them to their own troops in Eastern Europe. As for the US, nuclear non-proliferation is so deeply ingrained in American foreign policy, that the export of atomic weapons to foreign hands can be ruled out. The other possibilities of supply would be Great Britain, which can be ruled out, and France and the People's Republic of China, which have not been above political mischief involving military supplies, but it's difficult to conceive that they would extend their largesse to the volatile Middle East.

So, amidst all the other perils and difficulties that the mid-East produces for the rest of the world, what are the prospects of the neighborly parties there going nuclear on their own?

The Israelis have deliberately encouraged uncertainty as to their nuclear status, asserting, on the one hand that they would not initiate the use of atomic weapons, but on the other, they have declined to become a party to the nuclear non-proliferation treaty. At the same time, they quietly exude confidence that they possess the talent, materials, and facilities to go nuclear, should they choose to. Thus, it is plain that they see merit in keeping the world guessing, and, as a consequence, any outside estimate of the situation cannot settle the matter finally, for only the Israelis—and, no doubt, only a handful of them—really know and they are not talking.

SGR, however, has been inquiring among people in the US and abroad whose guesses are likely to be better-informed than most, and the following consensus emerges:

It appears to be extremely doubtful that the Israelis have gone the full course in fabricating an actual weapon, but it is likewise doubtful that they have put the subject aside as of no interest. What is most likely is that they have done a considerable amount of work toward developing and constructing essential components of a weapon, but that they could honestly say, if they chose to level on the subject, that they do not possess nuclear weapons.

What is certain is that, over the years, their reactor at Dimona, which was built and originally operated in collaboration with the French, has produced an ample amount of plutonium for several weapons. Both the French and the Israelis have been extremely cagey about what, if any, safeguard arrangements have been applied to Dimona. The agreement between the two nations was executed

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In Brief

US officials report that the People's Republic of China remains affable but intransigent about expanding US-China scientific and technical exchanges from the present "people-to-people" basis to larger scale government-government dealings. The stumbling block remains US recognition of Taiwan, which the Chinese say must end before they go on to bigger things. As a result, most scientific exchanges so far have either been on a personal basis or through a linkup of the science academies of the two countries.

State Department "shakeups" occur with regular frequency, but untouched so far is Herman Pollack, the Department's top official for scientific and technical affairs. Curiously, Pollack, along with all other high-level administration officials, submitted, as demanded, a pro forma resignation last year, following Nixon's re-election. Virtually all other resignees received a stay or go reply, but Pollack is yet to get an answer.

Alan C. Nixon, the outgoing president of the American Chemical Society, has suggested an embargo on scholarly literature to the Soviet Union. Nixon, who is miffed that the Russians ignored three ACS letters protesting harassment of Soviet scientists, recently suggested that the ACS "should be thinking of other ways" to make its point: "One way would be to refuse to sell them any journals or books." Nixon believes this would be a "positive gesture" that wouldn't cost the ACS much, since the Russians only subscribe to two copies of Chemical Abstracts Service anyway (the Japanese take more than 700).

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outside the safeguards system of the International Atomic Energy Agency (IAEA), and though relations between France and Israel have sharply cooled since Dimona went into operation in 1964, it is not clear whether they are still doing business in the nuclear field. There is no publicly available evidence that Israel has built the chemical separation plant that would be needed to produce weapons-grade plutonium, but since she is strong in chemical engineering, and has a pretty good record of carrying out major undertakings in secrecy, it would not be difficult to build and operate a masked separation plant.

What is also certain is that the Israelis have never tested a nuclear weapon, the basis for this conclusion being that land under her control is virtually free of seismic disturbances, and she simply could not get away with an undetected underground blast. The absence of a test, of course, does not prove anything but the absence of a test. But the experts almost invariably note that military men in all times and places feel a compelling necessity to test weapons that occupy an important place in war plans. As one analyst put it, for the Israelis to rely on an untested nuclear bomb as their last resort weapon for survival would be like an air force basing its operations on aircraft that have never been flown. Possible, but extremely unlikely.

Finally, there is the question of the US role in Israel's nuclear affairs. Since nuclear non-proliferation has been a durable centerpiece of American foreign policy since 1945, it may be assumed that the US has sought to exercise the considerable leverage that it has over Israeli military supply to insist that Israel refrain from going nuclear. How, if at all, this has been accomplished is not a matter of public knowledge. But several years ago, it was reported that in return for an assurance of continued military supplies, Israel quietly granted the US the right to monitor the Dimona plutonium traffic so as to demonstrate that none of the material was being diverted to unknown destinations. The status of that agreement, assuming it ever existed, is another matter on which nothing is said publicly. But what it all seems to add up to is that the Israelis could get there if they chose to, but so far are yet to qualify for membership in the nuclear club.

As for the Egyptians, prior to the most recent fighting, the commonplace answer would have been that they are so incompetent and disorganized that their nuclear prospects can be dismissed as non-existent. It should now be clear, however, that this view of the Arabs as simple folks who can't operate complex machinery is a lot of arrogant and racist nonsense. (When they took over the Suez Canal after the 1956 war, it was widely and smugly assumed that they couldn't run it, but, as it turned out, they did very well.)

The Egyptians possess a nuclear research center, but they have been even more cagey than the Israelis about what goes on there. What is plain, however, is that there is no shortage of Egyptian-born talent for high-technology endeavors. What has been lacking are opportunities at home, and the result has been that Egyptian scientists and engineers have fanned out over the western world, and presumably the Soviet Union, to pursue their careers. In recent years, there have been organized efforts to lure them back home, but for what purpose and with what success, we don't know.

This writer toured some Egyptian research facilities three years ago, and found them to be decaying and demoralized from lack of support and government indifference. But all along the way, there was the suggestion that somewhere else was a parallel research enterprise, screened off from visitors, where real work was being done to Western standards.

In sum, the safest conclusion seems to be that the Israelis can go nuclear if they choose to, but haven't and that the Egyptians share the same possibility, but are probably a good way behind.—DSG

Secret PSAC Report Forecast Anti-Tank Success

Alumni of the now-defunct President's Science Advisory Committee (PSAC) regard with considerable bitterness the Pentagon's expressions of surprise over the havoc that Soviet-built missiles wrought against Israeli armor and aircraft in the recent mid-East conflict.

Several years ago, when the Pentagon was pressing hard for construction of the million-dollar-apiece Main Battle Tank and new tactical aircraft, Science Advisor Edward E. David Jr. convened a secret panel to examine the pace of anti-tank and anti-aircraft missile developments. It concluded that for the foreseeable future, the advantage was passing to the anti's so rapidly that the combat survivability of tanks and battlefield aircraft would be seriously diminished. The panel concluded that complex systems costing a fortune were in the process of being negated by relatively simple weapons that frequently cost only a few hundred dollars apiece.

The panel's conclusion was forwarded to the Pentagon, where, after a long delay, it drew a polite formal acknowledgment, plus an informal rebuff to the effect that academic scientists should realize that they know little about the complexities of modern battlefield tactics.

Another PSAC panel also took a look at the issue of aircraft carrier *versus* submarine-based cruise missiles, of which the Soviets have plenty in their underseas fleet. It concluded that the odds were heavily with the missiles and that no foreseeable defense existed for the carriers. Again, the response was essentially, Mind your own business.

Last January, it may be recalled, Nixon abruptly abolished the White House Office of Science and Technology, and with it, PSAC went down the drain, too.

Nixon's Energy R&D Effort Won't Yield Quick Fix

The major thrusts of President Nixon's $10 billion 5-year energy R&D program have begun to emerge, and while the plans are subject to refinement and change, it is already clear that the program represents a significant increase in federal activity but no panacea for the energy crisis.

The rough outlines of the emerging plan were presented to a Nov. 14 meeting of the Energy R&D Advisory Council of the President's Energy Policy Office by Gorman Smith, a key assistant to Dixy Lee Ray, chairman of the Atomic Energy Commission, who has been charged with preparing recommendations for spending the $10 billion. Smith stressed that Ray had not given her final approval to the recommended funding levels, but he said she felt they were "near enough to within the ballpark" to be revealed for discussion.

Administration officials, wary of public distrust of official promises, emphasized that they are not manipulating the numbers to make it appear that they are making a major R&D effort when in fact there is none. As Smith put it, "it's not a shell game . . . it's a very major acceleration." Similarly, William T. McCormick, an alumnus of the former White House Office of Science and Technology who now serves as the key R&D staffer in the President's Energy Policy Office, told SGR "it's a very very ambitious program—we're doubling and tripling some programs."

The basis for those claims is that the President's $10 billion program represents a 51 per cent increase over the $6.6 billion that federal agencies had originally proposed spending for energy R&D in their long-range plans for the next five years. If the figures are accurate, that represents a substantial boost, though the President's critics are quick to point out that his ballyhooed "$10 billion" program really only contains about $3.4 billion in new money above the programs that were projected anyway.

The preliminary figures were developed by an armada of experts assembled by Dr. Ray. As a first step, some 15 technical panels were convened to recommend three levels of programs—a "minimum viable program," an "orderly" effort, and a "crash program." The panels caused considerable consternation by recommending a "crash program" that would cost $30 billion and an "orderly" program costing $18 billion. Even the "minimum" program totalled about $11.3 billion, more than the Nixon Administration's bold new effort had pledged to spend. That can be interpreted as evidence of the inadequacy of the Nixon effort or of the propensity of advisory committees to recommend the moon.

The panel recommendations were then pared down to $10 billion by an overview panel headed by Stephen Wakefield, assistant secretary of the interior for energy and minerals. It was the overview group's recommendations which were made public by Smith. The numbers may be modified by Dr. Ray before she delivers her final report to the White House on Dec. 3, and by the Office of Management and Budget and the White House energy office

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Energy Plan Lists Priorities, Boosts Fossil Fuel Research

The energy R&D program that is being put together by the Administration places highest priority on research areas that offer promise of a rapid move to energy self-sufficiency, secondary priority on research aimed at ensuring environmental quality, and lowest priority on research that might help cut the cost of energy.

John Sawhill, associate director of OMB, lamented that the President had hoped to receive options on how to balance the conflicting objectives of self-sufficiency, environmental protection, and low cost, but the numbers submitted to the White House will apparently already embody a preliminary decision on those choices.

The priority tasks for research in the emerging program include (1) conservation of energy by reducing demand and increasing the efficiency of production and distribution; (2) increased production of oil and gas by developing new recovery techniques and new sources, such as oil shale; and (3) substitution of coal for oil and gas. These first three tasks will help to secure a "fossil option" during the transition period while the nation seeks to validate the "nuclear option," Smith said. The remaining priorities include (4) guaranteeing the nuclear option by continuing research on safety, waste management, alternate reactor technologies, and the breeder; and (5) exploiting such long-range energy sources as fusion, geothermal, solar, and wind.

Perhaps the most significant new thrust is the increased emphasis on fossil fuel research. Federal agencies had originally planned to spend some $1 billion on research related to the fossil option over fiscal years 1975-79, but the new plan calls for 3½ times as much, or $3.7 billion. A major chunk of that will be devoted to coal. The fission program would receive only a slight boost, from an originally planned $4.09 billion to a recommended $4.39 billion, but it would continue to attract more funding than the fossil programs. (Several members of the Advisory Committee, including nuclear expert Alvin Weinberg, expressed fears that coal research will not be adequately supported.) As for programs aimed at a more distant payoff, fusion would get a slight boost, from $1.4 billion to $1.55 billion; solar would jump from $80 to $200 million, a substantial percentage increase; and geothermal would jump even more, from $20 to $185 million.

ENERGY *(Continued from page 3.)*
thereafter. But the general thrust of the program is apt to remain the same.

Future spending plans tend to be little more than rough guidelines, however, so it is difficult to predict just what the Administration will allocate to energy R&D when it faces the task of preparing future annual budgets. McCormick said the White House does not regard $10 billion as a "magic figure . . . it could end up $9 billion or $11 billion." Moreover, the designated program will not necessarily include everything related to energy R&D. Smith told the Advisory Council that it is Dr. Ray's "current intention" to submit the $10 billion program with a suggestion that an additional $1 billion be spent for research on the environmental effects of energy and for basic research in areas that support the energy effort. He said the $10 billion figure already includes about $1.1 billion for "environmental control technology" and another $400 to $500 million that "might reasonably be called" basic research.

Whatever amount is spent, Administration officials acknowledge that the R&D program will contribute relatively little to achieving the President's announced goal of energy self-sufficiency by 1980. In his November 7 energy address over nationwide television, the President grandly christened his $10 billion R&D effort "Project Independence." Likening it to the Manhattan Project, which produced an atomic bomb, and the Apollo Project, which placed a man on the moon, the President asserted: "Let us pledge that by 1980, under Project Independence, we shall be able to meet America's energy needs from America's own energy resources."

But such rhetoric is causing consternation in the technical community, which fears a backlash when research fails to deliver the promised goods. When the proposed research program was outlined to the Advisory Council, Alvin Weinberg, director of the Oak Ridge National Laboratory, noted that the public was being given "high expectations" and questioned how much of the research would make any difference by 1985. Smith replied that perhaps $4.5 billion of the $10 billion involved research that would produce an "initial effect" by 1985, but he acknowledged that "it's not going to do anything right now." To which Gordon J. F. MacDonald, director of the environmental studies program at Dartmouth, amen-ed: "There's no immediate technical fix."

One reason the federal program is unlikely to solve the immediate energy crisis is that it is simply a research program, not a production program. The analogy with the Manhattan and Apollo projects is thus not quite apt, since both those projects produced the device that was needed to solve the immediate problem. Another reason is that the federal effort is training its sights beyond 1980. In fact, the proposed federal program deliberately de-emphasizes short-run projects on the assumption that industry will make a major commitment of funds to research that will produce a prompt payoff. Smith estimated that private investment in energy-related R&D would total some $10 to $12 billion over the next five years, with almost all of that sum paying for short-term projects. Thus the Administration is counting on industry to launch a research effort that is as large or larger than the federal effort, and which will contribute more to reaching the avowed goal of self-sufficiency in seven years. This tack disturbed some members of the Advisory Council. Louis Roddis, vice chairman of Consolidated Edison in New York, suggested that "too many dollars" were being allocated to long-range projects and too few to more immediate possibilities.

So how, if the R&D program won't solve the current crisis, does the Administration hope to reach self-sufficiency. According to McCormick, the chief hope is to conserve energy by dampening demand and increasing the efficiency of energy production and use. But that, of course, will require the political courage to force profound changes in our gluttonous, energy-wasting society. At this writing, there is no indication that the White House, beset with Watergate-related problems, is prepared to risk voter unhappiness by imposing anything more strict than a ban on Sunday gasoline sales.—P MB

US-USSR Science Ties Untroubled

Soviet-American scientific and technical relations appear to have been unscathed by the proxy war that the two nations have engaged in of late in the mid-East.

NASA officials report no alteration in the timetable for a Soviet-American linkup in space, and that cooperation by the Soviets is wholehearted and without any of the sticky difficulties that have often characterized past Soviet dealings with the West. American astronauts have been admitted to Soviet space facilities, and the reports they are sending back indicate that they feel they are getting what they sought.

Last week, the US-USSR Science and Technology Commission met in Moscow for two days, with H. Guyford Stever, director of the National Science Foundation, chairing the American delegation. No reports available yet on how that meeting went but when the US party set off, it did not convey the sense that it was bound for a troublesome session.

NAS to Hold Energy Forum

A meeting on "Energy: Alternatives and Risks," featuring a discussion by a panel of specialists followed by an opportunity for give and take with the audience, will be held Jan. 29 and 30 by the National Academy of Sciences. The meeting, second in a series the Academy is sponsoring on issues involving research and public policy, will be co-chaired by Arthur M. Bueche, of General Electric, and Philip Morrison, of MIT. It is open to the public without charge or advanced registration. For additional information, write to Robert R. White, Academy Forum, 2101 Constitution Ave. NW., Washington, D.C. 20418.

Once Again, A Call to Reorganize Scientific Advice

Following the pattern of the Sputnik trauma, the energy debacle is inevitably evoking prescriptions for still another reorganization of federal scientific and technical advisory services, one of the latest being a recommendation by the American Chemical Society that a "focal point" for technology be established "at least at the Cabinet level." To which ACS Executive Director Robert W. Cairns adds in an editorial in the Nov. 26 *C&E News*, "There is nothing in the current energy picture that could not have been understood and dealt with on a political basis during the past five or 10 years, if our political leaders had had properly experienced technologists by their sides."

The trouble with that, as with a number of similar diagnoses, is that they *did* have "properly experienced technologists by their sides," and the bookshelves of the Executive Office Building are weighted with evidence of early prophecies of the painful situation that has now come about. Consequently, what has to be recognized before any more mischief is done under the banner of reorganizing for better advice is that sound advice has not been lacking; rather, the deficiency has been on the receiving side, and even if science advice is moved into the Lincoln bedroom at the White House, there is not likely to be any significant change in receptiveness until a great many other things have changed on the American political and economic landscape. Not to recognize this is simply to endow science and technology with an aura of witchcraft, which will be followed by disillusionment and, in turn, a political disinclination to employ scientific advice for purposes where it can indeed be useful.

The evidence of the past decade makes it apparent that no amount of warnings concerning an energy crunch—whether emitted from high or low levels—could have penetrated political consciousness when government, business, labor, and the public mentality were hellbent for economic expansion. The cost of offering contrary advice in the face of such a consensus was a loss of interest on the part of those to whom the advice was addressed. Lyndon Johnson stopped listening to his Office of Science and Technology (OST) when its advice ran counter to what he wanted to hear on weaponry, federal investment in R&D, and assorted other matters. And Richard Nixon was so indifferent to what came out of his OST that, after more or less ignoring it for several years, he finally wiped it off the White House organization chart.

Ironically, OST's energy functions have trickled back into the White House under one title or another as Nixon and his associates have recognized their helplessness in dealing with the technical aspects of energy problems. But the key characteristic of the advisory process is that it is listened to only when it is wanted, and not because it happens to be there issuing advice. The location of the advisor becomes important only when the advice is considered worth having.

In connection with this it is instructive to recall an anecdote that was circulating last year at the time Nixon was putting together his first energy message. His technical advisers, it is reported, employed the term "energy crisis," but his political hands, wary of acknowledging that the leader had permitted a crisis to develop, struck out the words and replaced them with "energy challenge." Similarly, draft sections dealing with the very fuel conservation methods that are now being frantically implemented were diluted until little more remained than a few suggestions about dimming lights. There was no dearth of sound technical advice in the preparation of that message; what was lacking was the political will to accept it.

The essential fact about science in Washington is that knowledge is power only when the political element accepts the knowledge as being politically palatable. Having no sizable constituency, and existing in Washington by invitation rather than by hard won right, science, as personified by the advisory corps, is powerless to force sense on the nation's elected leadership, which is as it should be. That powerlessness is the basic fact of the matter, and no amount of reshuffling of the organization charts is going to make one bit of difference, unless the politicians want to listen, and when they do want to listen, the organizational layout of the advisory system is relatively unimportant. Rearranging the government is one of Washington's favorite indoor pasttimes, but the utility of it is open to serious doubt.—DSG

LETTER TO THE EDITOR

Dear Sir:

In your October 1, 1973, SGR, "Polaris on Ice: SST-Killer Garwin Floats a Plan," you say:

> "The idea [to use cold storage to extend the life of spare Polaris missiles] is not inspired by any charitable instinct, but rather stems from the strong desire of the arms control movement, of which Garwin is a leading member, to hold down the spread of missile technology."

That conclusion is unsupported by fact, and it is false.

My general approach is to look carefully at national security problems and among the feasible solutions to choose one which is at once robust and of low cost. I doubt that it helps the British economy to spend vastly more money than is required on their defense programs. Quite the contrary, unnecessary expenditures on one defense program reduce the funds available for other defense needs—in our own case, unnecessary expenditures on Trident not only corrupt the national security decision-making structure but also severely impede much-needed improvements in our nuclear and especially our non-nuclear forces.

Sincerely yours,
Richard L. Garwin

Court Decisions Chip Away at Committee Secrecy

Public interest groups have made significant judicial gains in their frustrating efforts to gain admittance to the meetings of expert committees that advise the federal government.

In theory, of course, such meetings were opened to public scrutiny by the Federal Advisory Committee Act which went into effect last January. But by the time that legislation emerged from Congress, it was so riddled with exemptions and loopholes that an obstinate bureaucrat could find many excuses to bar the public. The result is that a number of advisory committees (including scientific advisory groups and peer review panels) have continued to operate in secret, while others hold a token "open" session then retreat to executive session to conduct their real business. Thus reformers who sought open meetings as a safeguard against influence-wielding by special interests have largely failed.

The favorite excuse for continuing to bar the public from meetings has been exemption 5 of the Freedom of Information Act, a supposedly historic piece of legislation which was designed to make government documents available for public inspection but which has, in practice, given recalcitrant officials nine reasons (called "exemptions") *not* to make information available, all of which were incorporated by reference in the Advisory Committee Act.

Exemption 5 excludes from the public domain "inter-agency or intra-agency memorandums or letters" except those which would have to be made available under legal "discovery" procedures. That provision was seized upon by the Administration's guideline writers and committee conveners as justification for closing any meeting they pleased, on the theory that most of the oral advice tendered by advisory committees is analogous to an inter-agency or intra-agency memorandum. Thus the *Federal Register* regularly contains notices of meetings that will be closed, with explanations such as the following: "The Director of the Cost of Living Council has determined that the meeting will consist of exchanges of opinions; the discussions, if written, would fall within exemption 5 [of the Freedom of Information Act]; and it is essential to close the meetings to protect the free exchange of internal views and to avoid interference with the operation of the committee."

The only recourse from such decisions is appeal to the federal courts, a tactic which has been used successfully in two recent cases by public interest groups. In the first case, the Institute for Public Interest Representation at Georgetown University won a preliminary injunction requiring the Defense Department to open a meeting of the Defense Advisory Committee on Women in the Services. Judge Aubrey E. Robinson, Jr., of the District Court for the District of Columbia, concluded in his October 10 memorandum opinion that exemption 5, which had been cited as the reason for closing the meeting, was not applicable because an advisory committee is neither a separate agency nor an internal part of the agency it advises, thus its advice can not be considered the equivalent of "inter-agency or intra-agency memorandums or letters."

Moreover, Robinson continued, while some matters can clearly be exempted from public disclosure, such exemption "must be supported by substantial justification and explanation of the basis for the claim, not merely by conclusory assertions," with the burden of proof falling on the government to justify secrecy. In the particular case of the defense committee, the judge found "exemption 5 inapplicable by its terms and irreconcilable by result with the very purpose of the Federal Advisory Committee Act."

The second court victory was won by Ralph Nader and his associates in a suit against John Dunlop, director of the Cost of Living Council. Nader had become disturbed that the Cost of Living Council received industry pitches at closed meetings, then handed down decisions on whether those industries could boost prices, with no opportunity for public interest groups to monitor the process. He filed suit demanding that meetings of the Council's various advisory committees be opened to the public, and on Nov. 9 he won a summary judgment from Judge June L. Green, of the D.C. District Court. Judge Green found that the government's use of exemption 5 "to include all deliberative conversations of the committee meetings is clearly contrary to Congressional intent and the policy of the Act. . . This Court will not allow the door to close on these meetings when Congress has expressly ordered the door be open except on the rarest occasions." In a key section of her order, Judge Green greatly narrowed the applicability of exemption 5 by specifying that the Cost of Living Council could only close such portions of itts advisory committee meetings as are devoted to discussions of "a document" which would be exempted from public disclosure under exemption 5 of the Freedom of Information Act.

At this writing the Administration has made no move to appeal the decisions, the only two that have been handed down thus far concerning application of the Federal Advisory Committee Act. If they stand, the two decisions could require changes for peer review panels, such as those at NSF, which have cited exemption 5 as the ground for closing their meetings. The picture is murky, for a 1972 appeals court decision from the 5th Circuit Court of Appeals *(Wu v. National Endowment for the Humanities)* concluded that written comments by outside reviewers concerning grant proposals could be kept confidential under the Freedom of Information Act. That decision did not concern the *meetings* of peer review panels, however, and it was handed down before the Federal Advisory Committee Act was passed. A fallback position for NSF, if it wishes to keep peer review confidential yet feels exemption 5 is no longer valid, would be to cite another exemption (NIH often uses exemption 4, involving trade secrets) or to abandon panel meetings and rely on written peer reviews.

Ribicoff May Investigate "Demoralization" at NIH

Senator Abraham Ribicoff's Senate subcommittee on executive reorganization is contemplating holding hearings on the plight of biomedical research and of the National Institutes of Health as a result of quiet proddings from major figures in the biomedical community.

The pitch to Ribicoff, a former Democratic HEW secretary, has largely been funneled through Wilbur Cohen, another former Democratic HEW secretary, who is currently education dean at the University of Michigan, as well as a consultant to the Ribicoff subcommittee. Cohen, who could not be reached for comment before this issue went to press, was apparently approached by biomedical scientists concerned with trends at NIH, and he consequently helped arrange a luncheon meeting at which the grandees of biomedicine voiced their concerns to Ribicoff and his aides.

Among those said to have attended the unpublicized meeting were philanthropist Mary Lasker, former NIH directors James A. Shannon and Robert Q. Marston, former NIH deputy director for science Robert W. Berliner, National Academy of Sciences President Philip Handler, and Institute of Medicine President John Hogness, plus numerous others.

It is not yet clear just what action Ribicoff will take. One staff aide told SGR the subcommittee may hold oversight hearings early next year to focus on such problems as the "politicization" of NIH, the "demoralization" of the biomedical community, the conflict between basic and applied research, the "awarding of contracts to hacks," and the impact of executive branch reorganizations on research programs. Another aide stressed that no decision has been made and that the subcommittee is simply making "preliminary, low-profile inquiries" into possible problems at NIH. Many biomedical leaders have been asked to submit papers suggesting areas that hearings might focus on.

Some of the current leaders of NIH view the possibility of hearings with mixed emotions. While they welcome support for biomedical science, they fear the Ribicoff inquiry might be viewed as a Democratic attack on the Republican Administration, or as a Congressional attack on the Executive branch, or as a Ribicoff invasion of turf claimed by Congressional health committees. They also fear that many of the self-appointed friends of NIH will sail off in different directions, with some urging NIH to show a practical impact on cutting disease rates, and others emphasizing the importance of basic research, with the result that NIH will be further split by demoralizing conflict.

Administration Accused of Gagging Its Scientists

Two former directors of the National Institutes of Health—James A. Shannon and Robert Q. Marston—have recently complained in speeches that the Nixon Administration is "gagging" or "muzzling" its research administrators, thereby preventing them from giving their best professional opinion to Congressional committees and the public.

Shannon made his charge while chairing a symposium at the National Academy of Sciences on Oct. 23. He contended that the Administration's budgetary policies have "destroyed" the science base at many medical schools, and he claimed that the Administration was blocking its professional scientists from conveying this information to Congress. "I really deplore . . . this type of control by an Administration over its professionals," he said.

The complaint was raised again by Marston at a Nov. 15 debate before the Academy's Institute of Medicine. Marston, who was ousted by the Nixon Administration last January in a general purge of Johnson Administration holdovers, implied that there is "substance to the rampant rumors of the gagging of federal witnesses." He cited the Administration's failure to release reports on heart research and training grants, which had been prepared by scientific advisory groups, as evidence that the Administration is "muzzling" opinions that do not coincide with its plans.

Government officials are traditionally expected to support the President's budget and programs, but in the past NIH leaders enjoyed a cozy relationship with Congressional committees. At hearings, after a suitable show of loyalty to the Administration, they would allow themselves to be coaxed into giving their "professional judgment" concerning the funds needed to perform biomedical research (more, of course). The Nixon Administration has been ordering its biomedical scientists to abandon that practice, and has often assigned chaperones to accompany scientists to private meetings with legislators. The new approach is approved by those who believe Administration leaders should set policy, but bemoaned by biomedical leaders accustomed to having their own say.

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NIH Proposes Tough Rules for Human Experimentation

NIH has issued a "draft working document" that raises for consideration new regulations governing the use of children, prisoners, and the mentally infirm as experimental subjects.

The regulations, published in the Nov. 16 *Federal Register*. (Part II, p. 31737) seem to go a long way toward tightening up practices that have recently come under serious criticism. They provide, for example, that each HEW agency establish an Ethical Review Board to examine the ethical aspects of research under the agency's sponsorship, and that each grantee institution set up a Protection Committee for the same purpose.

As far as research on children is concerned, the draft document states that "An investigator proposing research activities which expose children to risk must document, as part of the application for support, that the information to be gained can be obtained in no other way. The investigator must also stipulate either that the risk to the subjects will be insignificant, or that although some risk exists, the potential benefit is significant and far outweighs that risk. In no case will research activities be approved which entail substantial risk, except in the case of clearly therapeutic procedures in which the benefit to the patient significantly outweighs the possible harm."

In regard to fetal research, the draft suggests that the regulations be allowed some flexibility to accommodate new technologies, but it also states flatly that "In order to insure that research considerations do not influence decisions as to timing, method, or extent of a procedure to terminate a pregnancy, no investigator engaged in the research on the abortus may take part in these decisions. These decisions are to be made by the woman and her physician." It adds that "If the physician determines that the fetus is not viable, it is not acceptable to maintain heart beat or respiration artificially in the abortus for the purpose of research. Experimental procedures which of themselves will terminate respiration and heart beat may not be undertaken." And it goes on to recommend that "This policy and these protections apply with equal force to the products of spontaneous abortion."

The proposals for prisoners notes that "While it is important that prisoners have the opportunity to participate in research, it is equally important that they not feel compelled to." It recommends the establishment of an Organizational Review Committee by the prison institution or the sponsoring agency, plus a Protection Committee, consisting of at least five members, up to one-third of them scientists or physicians, plus at least one prisoner "or a representative of an organization concerned with prisoners' interest."

Also, "A child may not be included as a subject in research involving risk if he is detained in an institutional setting pursuant to a court order, whether or not the parents and the child have consented to the child's participation."

In regard to the mentally infirm, the draft calls for ongoing reviews by the agency Ethical Review Board, plus reviews by Protection Committees at each institution.

It also proposes that HEW-supported research abroad be subject to the same ethical standards as are employed domestically, and in regard to research not sponsored by HEW, it recommends that, if HEW standards are not met, the institution be barred from eligibility for HEW support until it falls in line with the standards.

These are tough regulations that should meet the approval of virtually all who have felt distressed about the ethical standards governing a great deal of human research. It may also be anticipated that many researchers will regard the regulations as so stringent and wrapped up in red tape that a lot of useful research will come to a halt.

HEW invites interested parties to comment on the regulations by writing to Director, NIH, 9000 Rockville Pike, Bethesda, Md., 20014

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